

ABSTRACT

The present application describes a programmable current controller for regulating an operating driving current flowing through an illumination source. The driving current is regulated according to a digital reference corresponding to a predetermined operating current for the illumination source. The digital reference can be converted into a reference electrical parameter (current or voltage). The reference electrical parameter is compared with an operating electrical parameter (current or voltage) corresponding to the operating driving current of the illumination source. Based on the comparison, a driving bias current is generated, which is used to regulate the operating driving current of the illumination source.